

## ABSTRACT

# An Innovative Nurse Practitioner-Led Health Service for People with Multiple Chronic Diseases

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### Purpose

In Australia nurse practitioners (NP) hold a Masters level of qualification and are authorised to practice autonomously, order and interpret diagnosis investigations, make referrals to other clinicians, and prescribe medications. NP clinics are, however, also structured along disease siloes like medical practitioners' clinics which is problematic for people with multiple comorbidities. An innovative, community-based chronic disease clinic for patients with at least two chronic diseases (chronic kidney disease [CKD], diabetes [DM] or heart failure [HF]) commenced in June, 2014, staffed only by NPs with the aim to improve access and patient-centred care using an integrated design.

### Methods

A longitudinal, prospective, cohort study was undertaken to examine the impact of the NP service on patient outcomes for the first 12 months of the service. We measured attendance patterns, clinical targets (e.g. blood pressure, HbA1C) and patient-reported outcomes (knowledge, self-management behaviours, self-efficacy, quality of life and patient satisfaction). In addition qualitative data was collected from patient interviews and stakeholder focus groups.

### Results and Discussion

Patients were mostly male (67.3%) with a mean age of 66 years (range 32 to 89 years). Primary diagnoses were CKD (47.3%), DM (23.6%), HF (29.1%), 83.0% had two diagnoses, and 17.0% had all three. 278 occasions of service were provided for 55 patients. Achievement of blood pressure and HbA1C targets ranged from 70-95% and 20% respectively (variation due to different primary chronic disease). Other patient-reported outcomes were consistent with the literature. Patients reported being highly

satisfied with the service and stakeholders commented on the benefits.

## **Conclusion**

Supporting patient adherence with complex chronic disease self-management was the goal of the NPs. Patient presentations to the emergency department or admissions to the hospital with disease exacerbation were reduced. Challenges include funding and improving processes. The integrated chronic disease NP-led service has the ability to be replicated internationally.